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[Continued on next page]

(54) Title: ANTI-CD38 HUMAN ANTIBODIES AND USES THEREFOR

Variable Heavy Chain DNA

3077_VH1B (SEQ ID NO: 1):

(1) CAGTGGCAAT TGGTTCAGG CCGCGCGGAA GTGAAGAAAC CGGCGCGGAG
(51) CGTGAAGATG AGCTGCAAG CTTCCGAGAT TACCTTCACT TCTATTCTTA
(101) TCAATTGGGT CGCGCAAGC CTCGAGAGG GTCTCGAGTG GATGAGGATG
(151) ATCTATCTCG ATGTGGAGAA TACAGATTAC GCGCAGAGAT TTCAAGGCGG
(201) GGTACACATCA ACCGAGATTA CAGACATTAG CACCGGATAT ATGAGAGCTA
(251) GAGACCGGCG TACGAGAGAT AGCGGCGTGT ATTATGCGG GCGTGTATAT
(301) ATTTATTTTA TTCTAGTAT GTTTATCTT TGGCGCGAAG GACCGCTGCT
(351) GACGCTTAC TCA

3079_VH3 (SEQ ID NO: 2):

(1) CAGTGGCAAT TGGTTCAGG CCGCGCGGCG CTGTTGCAAC CGGCGCGGAG
(51) CCGGCGTCTG AGCTGCGGCG CTCGCGAGTT TACCTTCTCT TCTATATGTA
(101) TCAATTGGGT CGCGCAAGC CTCGAGAGG GTCTCGAGTG GATGAGGATG
(151) ATCTATCTCG ATGTGGAGAA TACAGATTAC GCGCAGAGAT TTCAAGGCGG
(201) TTTTACCTCT TCAAGAGATA ATCGAGAGAA CACCTCTATAT CTGCAAGCTA
(251) ACAGCGCGCG TCGAGAGAT AGCGGCGTGT ATTATGCGG GCGTGTATAT
(301) TGGTTCAGAT CTGCTGCTCT TTTTATCTAT TATTGAGGCG AGGAGCGCTT
(351) GGTGACGCTT AACTCA

3080_VH3 (SEQ ID NO: 3):

(1) CAGTGGCAAT TGGTTCAGG CCGCGCGGCG CTGTTGCAAC CGGCGCGGAG
(51) CCGGCGTCTG AGCTGCGGCG CTCGCGAGTT TACCTTCTCT TCTATATGTA
(101) TCAATTGGGT CGCGCAAGC CTCGAGAGG GTCTCGAGTG GATGAGGATG
(151) ATCTATCTCG ATGTGGAGAA TACAGATTAC GCGCAGAGAT TTCAAGGCGG
(201) TTTTACCTCT TCAAGAGATA ATCGAGAGAA CACCTCTATAT CTGCAAGCTA
(251) ACAGCGCGCG TCGAGAGAT AGCGGCGTGT ATTATGCGG GCGTGTATAT
(301) TGGTTCAGAT CTGCTGCTCT TTTTATCTAT TATTGAGGCG AGGAGCGCTT
(351) GGTGACGCTT AACTCA

3100_VH3 (SEQ ID NO: 4):

(1) CAGTGGCAAT TGGTTCAGG CCGCGCGGCG CTGTTGCAAC CGGCGCGGAG
(51) CCGGCGTCTG AGCTGCGGCG CTCGCGAGTT TACCTTCTCT TCTATATGTA
(101) TCAATTGGGT CGCGCAAGC CTCGAGAGG GTCTCGAGTG GATGAGGATG
(151) ATCTATCTCG ATGTGGAGAA TACAGATTAC GCGCAGAGAT TTCAAGGCGG
(201) TTTTACCTCT TCAAGAGATA ATCGAGAGAA CACCTCTATAT CTGCAAGCTA
(251) ACAGCGCGCG TCGAGAGAT AGCGGCGTGT ATTATGCGG GCGTGTATAT
(301) TGGTTCAGAT CTGCTGCTCT TTTTATCTAT TATTGAGGCG AGGAGCGCTT
(351) GGTGACGCTT AACTCA

3077_I_VH1B (SEQ ID NO: 31):

(1) CAGTGGCAAT TGGTTCAGG TGGTTCAGAA GTGAAGAAAC CGGCGCGGAG
(51) CGTGAAGATG AGCTGCAAG CTTCCGAGAT TACCTTCACT TCTATTCTTA

(57) Abstract: The present invention provides recombinant antigen-binding regions and antibodies and functional fragments containing such antigen-binding regions that are specific for CD38, which plays an integral role in various disorders or conditions. These antibodies, accordingly, can be used to treat, for example, hematological malignancies such as multiple myeloma. Antibodies of the invention also can be used in the diagnostics field, as well as for investigating the role of CD38 in the progression of disorders associated with malignancies. The invention also provides nucleic acid sequences encoding the foregoing antibodies, vectors containing the same, pharmaceutical compositions and kits with instructions for use. The invention also provides isolated novel epitopes of CD38 and methods of use thereof.